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#### Figure 43: Time of Occupancy, 2441MHz, 8-DPSK DH1

Spect Swep	rum Analı t SA	yzer 1	•	+							Frequency	- 7 🛞
KEY RL	SIGHT	Input: F Couplir Align: A	RF ng: AC Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 30 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Lo Trig: Free Ru	og-Power un	1 2 3 4 5 6 W WW WW W P N N N N N	Cente 2.44	er Frequency 1000000 GHz	Settings
1 Spe	ctrum		•		Ref LvI Offset 1.0	00 dB		ΔMkr1	386.7 µs	0.00	000000 Hz	
Scale Log	/Div 10 c	iB			Ref Level 20.00 d	IBm	1/2		-0.14 dB		Swept Span Zero Span	
10.0				X <sub>2</sub>		handerthered and the states	~				Full Span	
-10.0 -20.0 -30.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	***	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							Start 2.44	Freq 1000000 GHz	
-40.0 -50.0 -60.0										Stop 1 2.44	Freq 1000000 GHz	
-70.0 Cente	er 2.4410	00000 G	SHz		#Video BW 3.0 M	WHz			Span 0 Hz	<b>_</b>		
Res E	W 1.0 M	Hz					Sv	weep 1.00	ms (601 pts)	CF SI 1.00	ep 0000 MHz	
JIVIAI	Mode	Trace	Scale	x	Y	Function F	unction Width	Funct	ion Value	/ 	Auto Man	
1 2 3	<u>Δ2</u> F	1 1	t t	(Δ) 386.7 µs 313.3 µs	(Δ) -0.1440 dB 5.225 dBm					Freq 0 Hz	Offset	
4 5 6										X Axis I	s Scale ₋og ₋in	r.
	ょ	3		2 Dec 06, 2024 3:19:26 PM	$\Box \triangle$					Signa (Span	l Track Zoom)	

#### Figure 44: Time of Occupancy, 2441MHz, 8-DPSK DH3

Spect Swep	rum Anal <u>y</u> t SA	yzer 1	, <b>-</b> -	F					Frequency	· · · 😤
KEY RL	SIGHT	Input: F Couplin Align: A	RF lig: AC Nuto	Input Z: 50 Ω Corrections: Off Freq Ref: Internal	#Atten: 30 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-I Trig: Free Run	Power 123456 WWWWWW PNNNNN	Center Frequency 2.441000000 GHz	Settings
1 Spe	ctrum		v		Ref LvI Offset 1.0	00 dB	ΔΝ	/lkr1 1.640 ms	0.00000000 Hz	
Scale Log	/Div 10 c	iB			Ref Level 20.00 d	IBm		-0.30 dB	Swept Span	
10.0			Xo			mase	<u>1Δ2</u>		Zero Span	
0.00			2						Full Span	
-20.0									Start Freq	
-30.0									2.441000000 GHz	
-50.0									Stop Freq 2 44100000 GHz	
-60.0 -70.0									2.111000000 CITE	
Cente	r 2.4410	00000 G	Hz		#Video BW 3.0 I	MHz		Span 0 Hz	AUTO TUNE	
Res E	W 1.0 M	Hz					Swe	ep 3.00 ms (601 pts)	CF Step	
5 Mar	ker Table		V						Auto	
	Mode	Trace	Scale	Х	Y	Function	Function Width	Function Value	Man Man	
2	<u>Δ2</u> F	1	t (/	Δ) 1.640 ms 575.0 μs	(Δ) -0.2991 dB 6.887 dBm				Freq Offset	
3									0 Hz	
4 5 6									X Axis Scale Log Lin	
	5	3	1?	Dec 06, 2024 3:20:00 PM					Signal Track	

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#### Figure 45: Time of Occupancy, 2441MHz, 8-DPSK DH5

Spect Swept	rum Analy SA	/zer 1	,	+									Frequency	- ※
KEY RL	SIGHT •••	Input: R Couplin Align: A	F g: AC uto	Input Z Correc Freq R	tions: Off tef: Internal	#Atten: 30 dB Preamp: Off	PNO: Gate: IF Gai Sig Tra	Fast Off n: Low ack: Off	Avg Type: Lo Trig: Free Ri	og-Power un	123456 WWWWWW PNNNNN	Cente 2.441	r Frequency 000000 GHz	Settings
1 Spe	ctrum		•			Ref LvI Offset 1	.00 dB			∆Mkr1	2.887 ms	0.000	00000 Hz	
Scale Log	/Div 10 d	B				Ref Level 20.00	dBm				-0.29 dB	s z	wept Span ero Span	
0.00			X <sub>2</sub> -	~***		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	-2400-200-0-0-2400	⊶~ <b>₽~</b> \$^\$ <u>\$</u> \$\$\$\$	*****	~		Full Span	
-20.0												Start F 2.441	Freq 000000 GHz	
-50.0												Stop F 2.441	Freq 000000 GHz	
Cente Res E	r 2.4410 W 1.0 M	00000 G Hz	Hz			#Video BW 3.0	MHz		SI	weep 4.00	Span 0 Hz ms (601 pts)	A CF St	UTO TUNE	
5 Mari	ker Table		•									1.000	000 MHz	
1	Mode Δ2	Trace	Scale t	(Δ)	X 2.887 ms	Υ (Δ) -0.2859 dB	Functi	on Fu	nction Width	Funct	ion Value	Freq (	lan Dffset	
34		ţ.	(		700.0 µs	5. <del>9</del> 24 dBm						0 Hz		
5 6												X Axis	Scale og in	
	ょ	3		2 Dec 0 3:20	06, 2024 27 PM	$\Box$						Signal (Span	Track Zoom)	

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#### 4.2 Mains Emissions

#### 4.2.1 Conducted Emission on AC Mains

#### RESULT:

Test standard	:	FCC Part 15.207(a)
Requirement	:	ANSI C63.10-2013, Clause 6.2
Kind of test site	:	Shielded room

#### Test setup

Input Voltage:which received AC 120V, 60Hz PowerOperation Mode:A.1.aEarthing:Connected to GNDAmbient temperature:21.6°CRelative humidity:49%

For details refer to following test plot.

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Note: The all configurations were tested respectively, Only the worst mode data of 8DPSK-hopping-DH5 was recorded in the test report.

Figure 46: Conducted Emission on AC Mains, L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.962	39.16	9.94	56.00	16.84	Peak	L	Pass
1*	0.962	33.43	9.94	56.00	22.57	QP	L	Pass
1**	0.962	28.73	9.94	46.00	17.27	AV	L	Pass
2	1.484	32.89	9.89	56.00	23.11	Peak	L	Pass
2*	1.484	25.62	9.89	56.00	30.38	QP	L	Pass
2**	1.484	26.50	9.89	46.00	19.50	AV	L	Pass
3	3.204	48.09	10.09	56.00	7.91	Peak	L	Pass
3*	3.204	40.72	10.09	56.00	15.28	QP	L	Pass
3**	3.204	31.30	10.09	46.00	14.70	AV	L	Pass
4	3.816	50.37	10.07	56.00	5.63	Peak	L	Pass
4*	3.816	45.06	10.07	56.00	10.94	QP	L	Pass
4**	3.816	32.77	10.07	46.00	13.23	AV	L	Pass
5	8.946	47.91	10.25	60.00	12.09	Peak	L	Pass
5*	8.946	40.49	10.25	60.00	19.51	QP	L	Pass
5**	8.946	32.93	10.25	50.00	17.07	AV	L	Pass
6	10.474	50.04	10.28	60.00	9.96	Peak	L	Pass
6*	10.474	42.64	10.28	60.00	17.36	QP	L	Pass
6**	10.474	34.13	10.28	50.00	15.87	AV	L	Pass

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#### Figure 47: Conducted Emission on AC Mains, N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.300	37.83	10.10	60.24	22.41	Peak	N	Pass
1*	0.300	33.78	10.10	60.24	26.46	QP	N	Pass
1**	0.300	32.50	10.10	50.24	17.74	AV	N	Pass
2	0.944	42.56	9.99	56.00	13.44	Peak	N	Pass
2*	0.944	35.63	9.99	56.00	20.37	QP	N	Pass
2**	0.944	29.74	9.99	46.00	16.26	AV	N	Pass
3	3.216	48.21	10.09	56.00	7.79	Peak	N	Pass
3*	3.216	41.07	10.09	56.00	14.93	QP	N	Pass
3**	3.216	32.43	10.09	46.00	13.57	AV	Ν	Pass
4	3.850	49.75	10.07	56.00	6.25	Peak	Ν	Pass
4*	3.850	45.04	10.07	56.00	10.96	QP	Ν	Pass
4**	3.850	31.92	10.07	46.00	14.08	AV	Ν	Pass
5	8.410	46.68	10.23	60.00	13.32	Peak	N	Pass
5*	8.410	39.78	10.23	60.00	20.22	QP	Ν	Pass
5**	8.410	30.05	10.23	50.00	19.95	AV	Ν	Pass
6	10.524	49.93	10.28	60.00	10.07	Peak	N	Pass
6*	10.524	42.50	10.28	60.00	17.50	QP	N	Pass
6**	10.524	34.11	10.28	50.00	15.89	AV	Ν	Pass

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## 5 Appendixes

### 5.1 Photographs of the Sample



Front of the sample



Rear of the sample

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#### Left of the sample



Right of the sample

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#### Top of the sample



Bottom of the sample

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#### Open-1 of the sample



Internal-1 of the sample

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Internal-2 of the sample



Internal-3 of the sample

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Internal-4 of the sample



Internal-5 of the sample

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Internal-6 of the sample



Internal-7 of the sample

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Internal-8 of the sample



Internal-9 of the sample

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Internal-10 of the sample



Internal-11 of the sample

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#### Internal-12 of the sample



Internal-13 of the sample

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Internal-14 of the sample



Internal-15 of the sample

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#### **Antenna Position**



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Antenna Photo

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### 5.2 Set-up for Conducted Emission on AC Mains



## 5.3 Set-up for Conducted RF test at Antenna Port



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### 5.4 Set-up for Radiated Spurious Emissions below 1GHz



5.5 Set-up for Radiated Spurious Emissions above 1GHz



\*\*\*End of the report\*\*\*